VOLUME IX NUMBER 7

THE ELEMENTARY SCHOOL TEACHER

MARCH, 1909

THE PRESENT POINT OF VIEW OF THE PLAYS AND GAMES OF THE KINDERGARTEN

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The educational value and significance of play in modern life needs no justification—"The more play, the more man." Experts from every profession contribute facts proving the need of free, spontaneous play-life in childhood. The growth of the physical body demands it; the growing powers of the mind depend upon it; the social and moral welfare results from it.[1]

While philosophers, statesmen, religionists, and educators from the classic days of Greece to the end of the eighteenth century had recognized the worth of play in childhood to a certain extent, to Friedrich Froebel is due the honor and credit of utilizing and organizing the play-life of children as the basis and corner-stone of a system of education. In the words of Dr. W. T. Harris: " . . . . these (Froebel's plays and games) are thoroughly humane in their nature and they offer to the child in a symbolic form the treasures of experience of the race, in solving the problems of life. They make children wise without the conceit of wisdom."[2] Jean Paul Richter in his *Levana* has well said, "Play is the first poetry of the human being," and, as

[1 The bibliography relating to plays and games is so extensive it would be beyond the limits of this article to refer to any but those bearing most directly upon the following outline.]

[2 Introduction to *Mottoes and Commentaries to Froebel's Mother Play*, pp. xiii–xv.

Ruskin says, "all true work is praise, all true play is love and prayer."[3]

A threefold attempt is made in this article: First, to outline briefly the philosophical and psychological implications found in Froebel's writings concerning plays and games; second, to suggest the most important modern points of view; third, to suggest periods and kinds of plays and games for children of kindergarten age.

I

First, Froebel's ideas of education are the result of the philosophical thought and atmosphere of his age. The law of unity, which is basic in every phase of his educational procedure, is, for him, the universal law of all development. It governs the unfolding of natural objects, as well as the mind. "This all-controlling law is necessarily based on an all-prevading, energetic, living, self-conscious, and, hence, eternal unity." "Education consists in leading man, as a thinking, intelligent being, growing into self-consciousness, to a pure, and unsullied, conscious and free representation of the inner law of Divine Unity, and in teaching him ways and means thereto."[4]

Froebel divides education into three periods: 1, earliest childhood; 2, boyhood; 3, manhood. The human being is always to be considered in relation to God, to nature, and to humanity.

> It cannot be doubted that Froebel for the most part kept clearly in mind throughout his work this idea of the educational process as a process of interaction, a process by which the spiritual experience, the *ideal* values of human life, are mediated or communicated to the individual.[5]

To Froebel it was possible to know life only through social relations, for only in response to the demands made upon him by the human family, by nature, and by God, could he come to consciousness of self and the oneness of all things.

"For Froebel, as for Fichte, freedom depends on activity and reflection, and for both the ethical law is, each particular action

[3] *Adolescence,* Vol. I, p. 235.

[4] Froebel, *Education of Man,* pp. 1, 2.

[5] J. A. MacVannal, *Educational Theories of Herbart and Froebel,* p. 87.

forms part of a series, which leads the individual to spiritual freedom."[6]

Play is the highest phase of child-development . . . . for it is a self-active representation of the inner—representation of the inner from inner necessity and impulse. Play is the purest activity of this age . . . . and typical of human life as a whole. It gives joy, freedom, inner and outer rest. It holds the source of all that is good. A child that plays thoroughly, until physical fatigue forbids, will surely be a thorough, determined man, capable of self-sacrifice. Play is not trivial, it is highly serious, and of deep significance.

The plays of childhood are germinal leaves of later life, for the whole man is shown in these tendencies. If the child is injured, if the germinal leaves of the future tree of life are marred, he will only with the greatest difficulty escape the stunting effect of the injury it entails.[7]

In the

period of childhood the aim of play consisted simply in activity as such—in boyhood the aim lies in a definite conscious purpose; it seeks representation as such, or the thing to be represented in the activity.[8]

The nature of play should be the development of the physical nature, but, to Froebel, the physical activity is but an "inner craving," "and has its grounds in his inmost life."[9]

The activity of the senses and limbs of the infant is the first germ, ... the first formative impulse.[10]

With the advancing development of the senses there is development in the child simultaneously and symmetrically, the use of the body, of the limbs; and this, too, in a *succession* determined by *their* nature, and the properties of corporeal objects.[11]

The type of play-activity treated in Froebel's *Pedagogics*, while dealing largely with "means of fostering employment" or, with educative play materials, again and again enunciates very clearly both his philosophical basis and the psychological method for the types of play selected by him.[12]

We have repeatedly said, and everyone can observe, that the child is to *feel and experience*, to *act and represent*, to *think and to recognize*, and

[6] J. A. MacVannal, *Educational Theories of Herbart and Froebel*, p. 89.

[7] *Education of Man*, pp. 54, 55. [8] *Ibid.*, pp. 112, 113.

[9] *Pedagogics of the Kindergarten*, pp. 238, 260, 261.

[10] *Education of Man*, p. 34. [11] *Ibid.*, p. 47.

[12] *Pedagogics of the Kindergarten*, pp. 28, 67, 237, 145, 122, 206.

that in this *threefold yet single* nature are included the totality of his expression of his life and of his activities.[13]

The *Mother-Play Book* contains the type of play most advocated by Froebel and used by the majority of his followers. It gives the key to his philosophy of life, and forms the basis of the so-called "subject-matter" and of the games of the kindergarten used by all who follow the historic method. Froebel's conception of play is relational. The function of the mother or teacher is to present ideals of life in play form; in order that the child himself may have "fore-shadowings" or "premonitions" of his later adult life. Froebel unquestionably recognized that instinctive life of the child in certain aspects, for he frequently refers to activity itself as instinctive. He values both the imitative and social aspects of play, but his treatment of the instinctive life of the child is not unitary, but isolated. The whole emphasis is upon the symbolic nature of play, for the major portion of his writings shows forth his methods by analogues.

Froebel's method of realizing his philosophical ideals was deductive.[14] While we are enjoined not to be "mandatory," or "prescriptive"[15] and are urged to be "following"[16] in our guidance, yet the tendencies indicate that by presenting only such ideals as are true to *all* life, can we truly educate the child. Occasional divergence is permitted,[17] but other than this is unworthy of the nature of man. From the practical point of view Froebel inaugurated the inductive method in his work, and his efforts in the organization of his ideals into a new form of practice was experimental, but as has already been indicated, the trend of his writings evidences the attempt to make the practical working-out of his theory conform to the postulates of his philosophy.

[13] *Op. cit.*, p. 122.

[14] See *Pedagogics of the Kindergarten*, p. 237.

[15] *Education of Man*, pp. 10–14.

[16] *Pedagogics of the Kindergarten*, p. 79.

[17] *Ibid.*, p. 239.

Froebel's general position is that spiritual monism which conceives material and mental evolution as continuous phases of one spiritual movement.[18]

In the *Mother-Play Book* are presented typical experiences of life which the historic kindergarten utilizes today in the same form as when first written, and as Miss Blow says,

By playing all the ideals which interpret nature and human life, the kindergarten flings the rainbow bridge between the heart of childhood and the vision of manhood, and through the allurement of the beautiful impels intellect to wrestle for truth, and persuades will to a prevailing struggle for goodness.[19]

Again,

The merit of the kindergarten games will be more closely discerned if we pause to define accurately the meaning of typical characters. A typical character is the concrete embodiment of some generic or creative aspect of human nature, or of some native passion which collides with generic selfhood.

The characters represented in kindergarten games must have three marks. They must be typical, elementary, and ideal. Children should not waste time dramatizing the merely capricious. They should not represent elementary types of evil. They should not represent complex types of either good or evil.

The question arises, then, do children of kindergarten age respond most vitally, or embody most truly, this class of plays selected by adults? I think not. Would not the best evidence or test of their value be to discover what games or plays are most commonly chosen by children when undirected by adults? "It is this freedom of choice and action at this early age which must inevitably be the criterion of judgment of kindergarten games." To summarize this statement: We present the point of view of the advantage to kindergarten education of philosophic adult ideals, versus the child's own ideals.

II

A. If it is true, as we believe, that freedom of choice and action are fundamental to the pedagogy of the kindergarten,

[18] J. A. MacVannal, *Educational Theories of Herbart and Froebel*, pp. 97–116. See also S. E. Blow, *Educational Issues of the Kindergarten*, p. 271.

[19] *Ibid.*, pp. 66, 74, 140, 143.

then the relation of the children to environment and heredity must be carefully considered. We do not believe that "nature and heredity" are radically false, but that the children can be trusted to select much that will be nutritive physically, mentally, and morally. The young child is non-moral, and only gradually can he grow into a consciousness of moral values, through concrete need in his *own* daily life, and "only by *experience* will he learn the meaning of truth and the value in accomplishing his ends." Often what is true for him is not our view of truth, but is his vividness of imagery, his ideal, and he has not learned, as yet, to distinguish between it and the real world. His consciousness of moral worths is somewhat comparable to his own stages of growth; 1, impulsive; 2, tending toward co-operation; 3, social regard and greater reliability, etc. The child needs, therefore, a social environment that presents a variety of experiences, both from the point of view of the objective world and the possibilities of subjective reactions. This will offer large scope for those instinctive activities that are so essential to all his later life, for out of them, or upon them, it is made.

> They are all impulses, congenital, blind at first, and productive of motor reactions of a rigorously determinate sort. Each one of them, then, is an instinct, as instincts are commonly defined. But they contradict each other —"experience" in each particular opportunity of application usually deciding the issue.[20]
>
> Man has a far greater variety of impulses than any lower animal . . . . Owing to man's memory, power of reflection, and power of inference, they come each one to be felt by him, after he has once yielded to them and experienced their results, in connection with a foresight of those results.[21]

The relation of these instinctive acts to the emotional life of the child is fundamental, but general,[22] and while slight,[23] is significant. While the play-life of the child is undoubtedly instinctive, play is a general term descriptive of many aspects of activity,[24] or is "simply a way of looking at things."[25] In the

[20] James, *Psychology*, Vol. II, p. 293.
[21] *Ibid.*, p. 390.
[22] Angell, *Psychology*, pp. 313, 325.
[23] James, Vol. II, p. 450.
[24] Kirkpatrick, *Fundamentals of Child Study*, p. 50.
[25] Angell, *Psychology*, pp. 106–8.

words of Mr. James, life is all play and fairy-tale and learning the external properties of things.[26] Happily the fairy-tales form a most important part of his life, for they incite to activity of the best order.

The directive work in the kindergarten, so far as guiding activity is concerned, must lie mainly in the direction of organizing the tyrannical but necessary reflexes that we call habits. Infant education should be mainly concerned with stocking and directing the subconscious nerve centers.

And in the kindergarten all this training of the lower nerve centers takes place in a social atmosphere to which the children are fully alive and to which they freely respond. Sympathy, emulation, hope, fear, selfishness, altruism, all the passions that gather round social life and intercourse are available for the teacher who knows how to use them. Hence the work and play must be directed to group activities that will give wide and ordered activity to all the feelings of social life.[27]

In Section I we noted that Froebel's effort was to bring the child to an apprehension of adult truth by analogy. According to the modern point of view

there is a tacit assumption that it is a good indication of future mental ability for the child's expressions and attitudes to show early a similarity to adult types. To emphasize these analogues to adult life is to lay stress on the least important aspects of child-life. The daily spontaneous outgo of energy in play, imagery, and work is of far more importance as an indication of the future than are the clever doings which are often mere imitations—not the sparklings of intelligence that they seem to be to the adult, but simply efforts, along with many others, that the child puts forth to express himself.[28]

This view of the developing life of the child is most clearly and satisfactorily stated by Mr. King in the following words:

The functional point of view emphasizes, first of all, the intimate interrelation of all forms of mental activity, and the impossibility of describing any one aspect of consciousness except with reference to the organization of consciousness as a whole.

It (the conscious state) is no longer regarded as an *imperfect* manifestation of that which it is hoped may mean something in a later stage

[26] James, pp. 401, 427.

[27] Earl Barnes, *Elementary School Teacher*, October, 1908, pp. 60, 61; cf. Irving King, *Psychology of Child Development*, Introduction by John Dewey, p. xviii.

[28] *Ibid.*, p. 4. Note also p. 10.

of life. The conscious state exists here and now, and it must be interpreted entirely with reference to its origin and meaning in the here and now.[29]

The life of the child is to be considered from this unitary point of view, in his developing of consciousness.

Nothing can be more uncertain than to judge of consciousness by its so-called expressions. The conclusions must rest on the assumption that certain activities are necessarily connected with certain conscious states—an assumption that for any particular case must be more or less hypothetical. In others words, we must depend on the mere assumption that such and such an act expresses such and such a conscious state.

The situation is, however, quite different if we know what is the functional relation of consciousness to activity. We know, on the one hand, that the consciousness of the child changes with its growth, from a relatively vague to a highly specialized form. We know also that its activities, its possibilities of movement, change enormously with maturing years.

Consciousness is related, not to activity, but to the growth of activity.

The point to be emphasized is that there must be a unified consciousness from the very first, even though it be a vague one. . . . . Emotion is no more capable of being defined *in* and of itself than is any other mental attitude. . . . . Just as a co-ordinated movement of any kind must occur with reference to some end that is to be accompilshed, so with the emotion that arises within such co-ordination.[30]

In other words, there is no such thing as emotion in general; it is always directed toward something.[31]

Emotional attitudes are as much differentiated products as any other mental function, and it is impossible to postulate their presence before there have been built up consciously co-ordinated sets of activity with reference to definite things and persons. We do not attempt to find the first appearance of emotion. The really important question is to discover the kind of a process or situation that tends to call for the division of labor that the emotional attitude represents. . . . . The true method is to take the experience and note what sort of activity it stands for, how it differentiates and grows in complexity as the demands made upon it increase. . . . . We are not concerned with finding in the child analogues of adult events, but in defining "conditions" in terms of their meaning and significance in the *experience* in which they occur."

[29] *Ibid.*, pp. 5, 6 (italics mine).

[30] *Psychology of Child Development*, pp. 30, 32, 35 (italics mine).

[31] *Ibid.*, p. 43.

[32] *Ibid.*, p. 70.

Imitation in the play-life of the child must be considered from the same functional point of view to derive its full worth.[33] This gives added weight and value to those simple, repetitional forms of play that so often are disregarded by the young kindergartner as too trivial to claim her attention, viz.; arm and leg movements, clapping, etc., play with sand, playthings, etc., repetitional acts.

Sufficient inductive study has been made by many able and sympathetic child students with thousands of children, to make very clear certain tendencies in the plays and games of undirected or self-directed children.[34] But, perhaps, of even greater importance from the point of view of development, are the results of investigation concerning nascent stages.[35] For the period of childhood the two fundamental requirements are that (1) suggestion should play an important rôle, and (2) the spontaneity of the child should have *full* freedom. These needs are fully outlined, and every teacher of young children would do well to take them to heart.

The testimony of all the observers of children in self-directed play is the close relation it bears to the environmental conditions, growth, pleasure and greater power in movement, understanding and initiative result. Whitman adds his tribute:

There was a child went forth every day, and the first object he looked upon
he became,
And that object became a part of him, for the day or a certain part of the
day,
Or for many years or stretching cycles of years.

A great many of the tendencies to action that we shall have to consider are usually accounted for in a vague and useless fashion by being described as recapitulation from early race history. We shall attempt to state them in terms connected with the immediate life-processes of the child itself. If such a statement is possible, it will certainly be more illuminating than one in which the emphasis is largely on the past.[36]

[33] *Ibid.*, pp. 119, 122, 123, 127, 128.

[34] Dr. Gulick, *Ped. Sem.*, Vol. VI, No. 2; Mr. Cooswell, *ibid.*, p. 315; Dr. McGhee, *ibid.*, Vol. VII, p. 459; E. Barnes, *Studies in Education*, Vol. I, No. 6.

[35] E. B. Bryan, *Ped. Sem.*, Vol. VII, p. 357.

[36] King, *op. cit.*, pp. 154, 156, 157.

The really illuminating category, then, under which to describe the child's activities, and one which includes them all on an equal basis, is that of present function. Their backward reference to the life of a remote ancestry is of far less moment to the educator than the fact that they are essentially the manifestation of a developing psycho-physical organism, and that in some way they make possible the activities of later stages and in the end condition the adequate performance of the functions of maturity. From this standpoint it becomes of even greater importance than before to know accurately from a study of children themselves just what we can call functions and activities of an immature mind. We do not mean to say that the study of the backward reference in the child's life is not necessary, but that the value of such a study for the teacher consists solely in applying it to the elucidation of its significance in the child's present experience. The question then is: What are the activities that characterize an undeveloped or immature mind and body, and in what way do they condition later and more adequate reactions?[37]

In this relation we note the similarity to Froebel's classification of the play-activities of early childhood, but with much clearer statement as to its meaning and value. (Note p. 175 for a fuller statement.) Here (1) we find further corroborative testimony as to the kind of games naturally shown by the children themselves; the succeeding stages of interest center [38] about (2) objects, toys, real things, and (3) the legal period, as described by Dr. Gulick, (ages 7–12). It concerns social co-operation to a higher degree. The interests center about ideas; the requirements of games are more exact. (Note also Miss Sisson's experience.[39]) A comparison with Froebel's *stages* of play is suggestive.[40]

The criterion of value for the future is necessarily one for the observer, one to be applied only after the evolution has been completed, and when we can look back and interpret the incomplete in terms of the complete. It may be perfectly legitimate in philosophy to use such a standpoint, but for psychology the criterion must be in terms of present function. From this point of view we have outlined the unfolding of the child's interests and disposition to certain sorts of action.[41]

[37] *Op. cit.*, pp. 160, 161. Note also pp. 164–166, 180, 181, 187, 188.

[38] A. Tanner, *The Child*, chap. xix.

[39] *Studies in Education*, No. 5.

[40] *Education of Man*, pp. 267, 271, 303.

[41] King, *op. cit.*, p. 40.

The earlier interests of man are not the mystic foreshadowings of what is to come, but the stuff that goes on differentiating until it reaches a degree of co-ordination and specialization that by common consent we call mature. There is no reason intrinsic in any activity at any time that labels it as more or less perfect, or as higher or lower in the scale of development. The boy does not form various clubs and societies with his playmates so that he may be a better member of society, but he does become an efficient and useful member of society because of these youthful co-operations. This is in substance all we can mean by the "development of interests." [42]

B. A few statements as to the nature or theory of play are needful to give meaning to the other sections of this paper. The simplest form of statement,[43] explanatory of the nature of play, is that "playful acts are always performed for their own sake, usually prepare for future usefulness, and are the outcome of inner tendencies of development resulting from past experiences of the race."[44] Or, stated differently, the four theories most suggestive and quite reconcilable are the Schiller-Spencer theory, that of surplus energy; that stated by Gross as the preparatory theory;[45] that by Hall[46] as the motor-habits and spirit of the past persisting in the present, and that "it is an expression of psychic life and reacts on it."[47]

I would not claim too much, but I cannot believe there can be any education in the true sense of the word that does not deeply involve the *emotions* and the *will*, and that does not take root in the inheritances that have come down from the motor-habits of the race; and as these motor-habits, endeavoring to persist in the present, are involved in play, we find there the surest and nearest approach to a true education of the child.[48]

The reader who may chance to be unfamiliar with Groos's book, *The Play of Man*, is urged to read the third section of the

[42] *Ibid.*, p. 216.

[43] Kirkpatrick, *Fundamentals of Child Study*, p. 58.

[44] *Ibid.*, chap. ix, p. 147.

[45] G. E. Johnson, *Education by Plays and Games*, p. 38.

[46] G. S. Hall, *Adolescence*, Vol. I, p. 202.

[47] T. R. Croswell, *Ped. Sem.*, Vol. VI, No. 3, p. 323.

[48] G. S. Hall, *Adolescence*, Vol. I, pp. 183, 204, 235; also Barnes, *Studies in Education*, Vol. I, No. 9, p. 359.

work, and note especially the last three chapters in it; also the second chapter in A. F. Chamberlain's valuable work, *The Child —A Study in the Evolution of Man.* Groos states that biology proves to us that the child does not play because he is young, *but,* he is young because he must play!

Play in childhood is concerned with everything; emotions, acts, thoughts, imaginings, speech, all begin their career under its subtle influence; language, poetry, art, science, all begin in child-play; the seekers after knowledge "play" as surely and as naïvely as the child.

III

In our effort to improve the plays and games of children under the age of seven, or, with more direct reference to their social grouping, in the kindergarten, we need to take closely to heart and mind the criticisms brought upon the kindergarten by scientists, artists, educators, physicians, or the "public." While their criticisms often show a lack of insight or appreciation for what has been contributed to education at large by the kindergarten principle and method, the marvelous change of mental attitude it has produced in many groups and communities of people; while, also, the cause of childhood from *every* point of view has been greatly advanced; yet, it still is true that the cherished ideals of its founder have been far from realized, and the hopes and efforts of child students the world over have not yet borne the fruit so much coveted.

We fully recognize that as a social organism it is impossible to attribute the causes of these unfulfilled hopes and ideals to the one phase of educational life, the kindergarten, but we do need to be self-examining in order that we may be more accountable for our heritage and our stewardship. 1. In the light of unquestionable facts[49] have we met the physical needs of children as fully as we might? 2. Have we so environed them that they have been stimulated, or had occasion to react from objective or subjective stimulus *freely* and *creatively?* 3. What occasions, "according to the nature of the child," have we offered for

[49] A. F. Chamberlain, *The Child,* pp. 13, 18; also *Ped. Sem.,* June, 1908, p. 271.

growth in moral action and ideas? These are the questions, or such as these, that we need to face. We believe that the plays and games of the kindergarten offer a better opportunity than any other one medium for development in these directions. We fear we have not honored, as we should, the fact that the child not only *delights,* but *needs* to realize his own possibilities in the "joy of being a cause," or his powers in experimentation.[50] We have oft-times presented plays and games more suitable for illustrative material for subject-matter, etc. We are beginning in different centers to plan for time when there shall be *no* plan. In other words, free-play has an honored place and time in the newer phases of kindergarten life. Many simple toys, pictures, books, sand-piles, as well as sand-tables, gardens, and play-places, are to be found in our most advanced kindergartens. The latter means of play were considered by Froebel himself the *indispensable* requirements for the children. Unquestionably Froebel was in the most natural play-relation to the children of his kindergartens, but in his effort to fully work out his theories in practice, the preponderant appeal in his own thought was the satisfying of the intellectual needs, and it dominated the form of his writings which have been the main source of training for kindergartners the world over, coupled with the more or less adequate interpretation of his followers.

While Froebel's aim in the plays and games was to develop creative self-expression, the games that are cited in the chapters on Movement Plays,[51] as well as those in the *Mother-Play Book,* are largely of a formal and symbolic nature and the chance for *free* self-expression is greatly limited.

In general, the play-life of a child expresses itself during four periods of life: (*a*) babyhood (1 to 2½); (*b*) early childhood (2½ to 6); (*c*) childhood merging into girlhood and boyhood (6 to 12); (*d*) boyhood and girlhood merging into the adolescent period (12 to 20).

a) The first period is characterized by simple movements for their own sake and the beginnings of instinctive activity.

[50] A. F. Chamberlain, *The Child,* p. 16.

[51] Froebel, *Pedagogics.*

b) The second is a continuation of the first, with new instinctive tendencies manifest, and the plays and self-made games centering more strongly about objects—realities. This is more noticeable till about 5½ years of age. It is the individualistic period. The imagination becomes more active with a growing knowledge of things and vague ideas of the relation of means and ends. "Primarily the imagination is a power of realization, not of fanciful playing with unreals."[52]

c) The third period begins to evidence spontaneous co-operation in social groups and the interests center about social relations. It is the time of competitive instincts and a desire for skill. The relation of means to ends is evident, rather than in immediate realities.

a) Babyhood. The form of play at this first period is largely motor, somewhat rhythmic. Froebel utilizes it largely by use of balls, and through songs. We can add to these opportunity for repetitional play, as previously mentioned.

b) Kindergarten age. During this period the form of play is largely rhythmic (simple individual dance movements, etc.) and imitative. In the latter class almost endless opportunities present themselves. Their chief characteristics will be determined by environmental influence, for they belong largely to the representative group. The beginnings of creative arrangement appear.

c) and *d*) Boyhood and girlhood. These ages witness great changes, for experience has registered much that is new, and so enriched the child, that memory plays an active part. The imagination is therefore more highly developed. Constructive and dramatic plays predominate, and originality is greatly enhanced.

In many kindergartens undoubtedly the swing of the pendulum has gone to an opposite extreme in the use of rhythmic activity, or, the plays and games have been for the "subject's" sake rather than the child's sake. If we bear in mind that the

[52] John Dewey, *Mental Development*, pp. 6, 9, 11; note also Angell, *Psychology*, pp. 170–80.

nature of the child and the nature of play should and do coincide, it will economize effort and make for freedom.

"At the beginning there was rhythm."[53]

In the dark background of history there is now much evidence that at some point play, art, and work were not divorced. They all may have sprung from rhythmic movement which is so deep-seated in biology because it secures most joy of life with least expense.[54]

Rhythmic movement is the inevitable expression of certain moods. By watching for the play of these moods, either (1) in activity itself, or (2) centered about playthings, or (3) centered about ideas or social groups, we can naturally lead the children to create their own play-forms. These may be in simple dances or games.

The main point is, that we shall meet the child upon his own plane of development, note his states of activity, emotion, or idea, and help him to originate of his own initiative his form of expression. We remember from our former statement that only as these activities and interests are considered from a functional point of view, in the "here and now," with reference to "how and why" they came to be, can we adequately help little children to *make ideal* that which already allures them on and out into a fuller, more perfect expression or being.

"Unless we condemn the experience, we cannot condemn any of the activities that have called it into being." This type of activity is a unity in itself, and is adequate to the plane upon which the child lives, moves, and dwells.

If the plays and games of the kindergarten are not developing (*a*) motor-power, (*b*) initiative, (*c*) individual and some degree of social control, is the kindergarten doing what is quite within its own realm?[55] We believe that the kindergarten has not done all that it could along these lines. Sporadic efforts have been evident, but the time is now ripe, with the increasing clearness of view concerning the social function of education, to

[53] G. S. Hall, *Adolescence*, Vol. I, p. 211.

[54] Gross, Vol. II, pp. 383, 392, 394.

[55] Colin Scott, *Social Education*, pp. 33, 34.

further these efforts and we believe the courage born of experience will give conviction of insight and principle.

On the one hand we believe the unchanging influence of undue organization of plays and games will be done away with, and on the other the seemingly aimless, confused, spontaneous activities of the children will. through the guidance of the feeling, seeing, and knowing teacher, be related unconsciously to the social group of which they form a part. In this connection a word as to the function of the teacher will not be amiss. She should not be the leader, but the "occasioner" only, who from the standpoint of larger experience can help the children upon their own path of discovery. Her personality will be the moving power.

The music in relation to the plays and games should be of the sort that integrates with the growth of the child and is a natural counterpart of the acts, feelings, and ideas which are being expressed in play form, and in the main should be quite simple.

In other words, we heartily recommend to every kindergartner who believes that the foregoing statements are worthy of consideration, that she endeavor to follow the requirements for children of kindergarten age (outlined by Mr. Bryan); that her methods be largely those of suggestion and imitation, and that she give children full scope for free, spontaneous play.

When she possesses experience based on such conditions she will realize that her highest obligation will be to enable each little child to live out his own life as fully as possible, according to the ideals of his own stages of growth, not hers. Then she will make occasion for him (1) in his baby days, to reveal in playful, free sense-activity, for the joy of being alive; and again, (2) during his kindergarten days, to imitate and make rhythmic experiences that are worthy, to his heart's content, and while she will endeavor to bring him into contact with nature in every way, yet in his own environment no matter how undesirable, can be found much that is worthy of representation in play, and if life abounds, he can idealize the real that *he* knows, enters into, and possesses, through his *own* creative dramatizations. Then, as he grows into a period (3) when he requires more complex

conditions for constructiveness, or larger group games, etc., he passes into the life of the school, he will be better prepared to function adequately there because he has lived out his own life as fully as possible in each previous period.[56]

In conclusion let me recall the main points we have tried to elucidate:

I. That Froebel's plays and games were based on the postulate of idealistic philosophy; that they were to bring *to* the child ideals common to the adult world.

II. That the modern point of view is that ideals possessed by the child himself and the whole group with whom he plays will be utilized as means of gaining higher ones; that only as he functions in relation to those from whom he has come and with whom he associates, can he rise to higher levels later on.

III. That the plays and games of the kindergarten will be expressive of the "life that is in and around all;" that they are *conditioned* by local factors, differing in each center (nationality, numbers, environment, etc.); that "stages of growth" must be the fundamental consideration, or point of departure.

If reality is in the unity of the spiritual and material, the kindergartner will lead a child to feel that there should be a guiding thought which seeks expression through all the materials at his command, through conversation, story, song, rhythm, game, and handwork. Balance will always be preserved, the creative spirit will be called forth and take form in something adequate to the significance of the moment. A child will gain a feeling of the self as an organic unity; thought and expression in perfect accord will intensify the personality.[57]

[56] Teachers of little children of all grades will find suggestions of special value concerning games as typical of the best work along these lines, in Mr. G. E. Johnson's book, *Education by Plays and Games,* published by Ginn & Co. Note especially pages 65–94 for children of kindergarten age. The studious and inventive teacher will be able to help her group of children to utilize their own resources and develop games most suited to their conditions. With such suggestions, as in this and other books arranged to meet the growing, changing child-life, the games will be more in accord with his health and happiness than any other type.

For folk dances see Miss Caroline Crawford's book, published by A. S. Barnes, and *Suggestions for Graded Games and Rythmic Exercises,* a book by Marion B. Newton, published also by A. S. Barnes.

[57] Miss Luella Palmer, *Elementary School Teacher,* September, 1908.

The attitude which the kindergartner will try to create will depend upon her own attitude toward the universe. The spirit of this article on plays and games and the point of view of the writer are in hearty accord with the quotation and article referred to, particularly the third principle which it states:

> She (the kindergartner) could hold one of three differing views: (1) that spirit is transcendent only, (2) that it is immanent only, or (3) that it both enfolds and is in matter. . . . . If God's purpose is a living, growing one which man is helping to embody, the kindergartner will have a definite plan in mind, but it will be a principle rather than a design, so flexible that it will allow for variation which would be more valuable for the children at the particular time and place than the detail she had prepared.
>
> In China society succeeds and civilization stands still. With our larger freedom the child throws off some part of the useless burden, expresses anew the ideals of life, and even reacts upon the adult so as to retard his hastening decadence, and civilization advances steadily onward. With increasing freedom in the study of realities and in *living* schools, our children will bring us still larger life with the birth of each new generaton.[88]

May the wondrous confidence of the little child be furthered, may his wonder-world be enriched, and the unfolding of his spirit, in gladsome, free, mirthful, and yet strengthening activity, be made more possible by our fellowship in play!

[88] Earl Barnes, *Studies in Education*, No. 9, p. 360 (italics mine).

POULTRY-RAISING AS A SCHOOL OCCUPATION

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Ever since Comenius said "Things before words" there has been a growing demand for some kind of physical activity upon which to base the so-called "regular work" of the schools. At first one form seemed as desirable as another. Even so wise a man as Dr. E. A. Sheldon, principal of the Oswego Normal School, used to say that it mattered little about the kind of work so long as it was objective. We have been gradually coming to see that it does matter very much and that the right kind of work must possess the following among other characteristics, viz:

1. It must fit into the needs of the community of which the school is a part so that children and parents may see that it is of practical value.

2. It must give opportunities for the child to participate in the work and in the rewards of his work.

3. It must furnish opportunities for typical, basal experiences and so build up important apperceiving concept groups.

4. Things must be seen by the children in their natural relations, and ministering to the life of man.

5. It must furnish a basis for natural correlation with the regular subjects.

In a section like Cape Cod, already known in Boston and New York markets for its fine Cape Cod eggs, and in a school like our Training School, nearly every child of which may have a few hens at home, this poultry industry seems to meet all of the foregoing requirements. I have felt for some time that poultry-raising, properly conducted, might furnish a school activity equal in value to the school garden. We have, therefore, started the experiment to see how much of this work may be safely recommended to the regular public school.

We have a small plant fairly well established and incidentally have done a little educational work of the right sort. Thus far

this has been done almost entirely in connection with the Normal School. We hope gradually to find points of connection with the Training School.

In the winter of 1907 a Cyphers Incubator was purchased and I began to experiment with it. The incubator was placed in my library with an experimental batch of eggs. My two little boys, aged respectively 9 and 10 years, watched and assisted in the turning of the eggs and in the care of the incubator. They heard the first faint peeps from the imprisoned chicks and watched with the greatest enthusiasm to see the little fellows struggle out of their enclosing shells. After all were hatched these chicks were transferred to a Cyphers Brooder which was placed on our lawn. The children considered it a great honor to be allowed to help care for them.

The incubator was now transferred to a small house which had been used for the school garden tools and a part of which had been partitioned off by one of our students to serve as an incubator house. This house was built into a sandy hillside and so it was possible to have an incubator room in which an even temperature could be preserved.

The business of incubation was now turned over to an energetic, faithful teacher and the incubator was kept going at its full capacity for two successive periods. It was found convenient to utilize some of these eggs at different stages of their development to illustrate Normal School work in biology. When the chicks began to hatch out the students were taken in groups to watch the process and they showed almost as much enthusiasm as my boys had shown.

After being transferred to the brooders the chicks continued to be centers of interest not only for the whole school but for visitors to the school. The question now arose as to what should be done with these chicks after they should outgrow the brooders. Here was a new problem. We must have a hen-house and we had no money for that purpose. We visited local poultrymen and obtained printed suggestions from the Cyphers Incubator Company, from the Agricultural Department at Washington, and from Orono, Maine.

We decided to make this our manual-training work for a while and to build a poultry-house after plans similar to those described in "Poultry Investigations at the Maine Agricultural Experiment Station, 1906." The School had recently constructed a coal-pocket out of reinforced concrete and had saved the lumber and some stones from the same. We dug into the south side of a very sandy hill and erected a strong retaining wall six feet in height, facing it with concrete. We erected walls of concrete two feet high on the other three sides and made a slightly sloping floor of concrete. We next erected our frame, covered it with the boards, and these with shingles. The concrete work was done in the spring principally by the men who care for the school grounds under the direction of a first-class mason. The framing of the building was done during the summer mostly by instructors and members of the manual-training class of the summer school. The shingling and a part of the interior construction was done during the autumn by the instructor and the Normal School students. As winter was fast approaching it was found necessary to have a carpenter finish up the work.

This chicken-house had thus furnished an excellent kind of manual training for the men of the school. I do not believe that it was an *excellent* kind for the young women, but it was much better for them than is the ordinary wood-working course. In fact, many advantages might be urged for it, not the least being that here was an urgent need for which they might help to provide.

As soon as the house was ready, the fowls were installed in their new and comfortable quarters. I was absent in Europe during the winter and so can only write what has been reported regarding the results. The fowls were put into the keeping of successive Normal School students, each anxious to help earn his way and willing to get some experience in poultry-raising. The instructor who was in general charge found a great difference in the quality of the work done by different students. Certain very important characteristics which were not suspected from the regular school work were clearly manifest in the poultry-house. In fact, enough has already come to me along this line

to prove that here is a new and reliable means of applying practical tests and of helping students to see and correct inherent weaknesses, which might never appear in the course of regular school work.

In connection with the incubation such points as the following impressed themselves upon the students: Very much depends upon the ancestors. Eggs should be obtained from a reliable dealer who has standard fowls of a high grade. The general health of such ancestors must be good. Both the cock and the hens must be in a vigorous condition at the time of the egg-production. Even after exercising the utmost care in these matters, some eggs are not fertile and others cease to develop at various stages of the incubation period. Some chicks break through the shells but have not sufficient vitality to free themselves from them. Others are so weak after struggling forth from their shells that they are trampled upon by their more vigorous fellows. The greatest care must be exercised during the period of incubation to keep an even temperature and to prevent any jarring of the eggs. The young chicks must be fed enough but not too much, and must be given some hard food to provide work for their digestive organs. They must be given plenty of fresh air and exercise, not too much heat, and opportunity to gradually accustom themselves to the cold air and other conditions outside of their brooder.

All of these ideas and many more furnish to the Normal School students very forceful lessons which have direct application on the hygienic side of their own everyday lives.

Although not much connection has as yet been made with the children of the Training School I have myself gained some ideas of possibilities along those lines by the experiences of my own children. I have already related some of these.

After seeing their father experiment with the incubator, my boys were anxious to try raising some chicks. We discussed matters at some length and finally it was decided that the older boy might try running a small incubator which I had purchased and that the younger should set a hen. Each was interested in the ex-

periences of the other and so both became well acquainted with the different stages of both methods of chicken-hatching.

When the young chicks were transferred from the school incubator to the brooders a few were thought not able to fight their way with the others. My boys asked for several of these unfortunates. They fed and watered them; put them out into the sunshine in the morning and behind the stove at night. They tried to straighten crooked feet and expended a vast amount of sympathy upon them. Some died and were buried with tears; others grew to be valuable members of the hen colony.

As a result of these chicken experiences and of various garden experiences they are glad to try for this winter (1908–9) the following plan. Each boy has charge of a flock of hens and a cock, one flock consisting of Rhode Island Reds and the other of Barred Plymouth Rocks. The hens are furnished; the boys do all of the work, pay for the food and sell the eggs. Each boy will have half of the profits from his flock. The lessons which they are learning could not be so well learned in any other way, and they are lessons which are becoming a valuable part of their equipment for life.

It is true, as some one objects, that such training cannot well be given to every child at school. But the school can do much. It can help to cultivate the right attitude toward this kind of work, and nearly every family in our villages and even in our small cities would find it profitable, pleasurable, and educational to teach the children how to care for a few hens.

"They knew, as God knew, that command of nature comes by obedience to nature; that reward comes by faithful service. . . . . There was no secret of labor which they disdain."—Emerson.

THE SCHOOL CLUB: ITS RELATION TO SEVERAL EDUCATIONAL IDEALS

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In endeavoring to realize one of the chief ideals of the public elementary schools, the development of intelligent, efficient, and upright citizens, teachers have had to depend upon the curriculum for material from which to develop a knowledge and appreciation of the rights and duties of citizens in a democracy and upon the classroom discipline for opportunities to make vital this knowledge through expression. While such studies as history, literature, geography, and civil government contain a wealth of material from which to develop such knowledge, the teacher is handicapped by the fact that as the government of the schoolroom must necessarily be of a more or less paternalistic character, the opportunities for the application or expression of this knowledge are very limited. Limitation in this case is unfortunate, since the realization of the ideal requires not only a knowledge and appreciation of the rights and duties of citizens in a democracy, but also a habitual proper reaction to those rights and duties. In other words, the intelligent, efficient, and upright citizen not only knows what he ought to do in a given civic situation, but he always actually does what he ought to do. Hence in this training *for* citizenship there should be training *in* citizenship, there should be opportunities to act and form habits of reacting as well as instruction in theory and principles. If, therefore, the schools are to be more successful in their endeavors to realize the ideal they have accepted, they must utilize every agency which makes possible growth in civic efficiency as well as improvement in civic knowledge.

Recognizing the fact that in this training *for* citizenship in a democracy there must be training *in* citizenship in a like democracy, not a few of thoughtful men welcomed the "school state," the "school city," and the "school village" as agencies

which might make possible this necessary growth in civic efficiency. This movement, however, met with severe criticism. It was said that the movement created within the school an organization entirely too complex and artificial. Teachers and principals who were working for simplicity in school administration did not favor a scheme involving the complexity of the government of the modern state, city, or town. Why impose upon the school forms of government which are proving themselves cumbersome and unsatisfactory in real life? Such forms could never express the real vital life of the school which must be regarded, not as a civic community, but as a large family in which the teacher stands *in loco parentis*.

Granted that the school is like a large family the artificiality of the "school city" is very apparent. The "school city" is not a real city, nor are the pupils real citizens. While sometimes it may seem almost real, there must always be the realization that after all it is merely a game. The police are not real police. The police court is not a real police court; nor is the criminal (let us be thankful) the real criminal. It is all a play, sometimes a drama, sometimes perhaps a farce, in which the actors are little men and women. Is not this attempt to reproduce the state, city, or town in miniature, with little men and women as its citizens, a retrogression to the seventeenth-century conception of children? Must another Rousseau arise to awaken us again to the fact that children are children, not little men and women?

To reject the "school city," however, does not necessarily mean that we must henceforth depend upon the curriculum and school discipline alone for our material and practice in the development of our ideal. Training *for* citizenship still implies training *in* citizenship, but we must remember that the citizenship of the child is somewhat different from the citizenship of the adult. If our schools are to be made more real to the child, we must find some agency which will express a part of his life as well as make possible growth in civic efficiency through activity. Such an agency can be found only in a careful study of the natural development of the life of the child.

A careful study of the natural development of the child will

reveal a period in his life when ceasing to live so completely for himself alone, he begins to reach out in an effort to join his life with the lives of others through some forms of co-operative activity. While at first this reaching out may be unconscious and instinctive and may express itself in gang life as well as friendships, it also becomes conscious, expressing itself in the club or society organized for the accomplishment of definite aims and purposes. At the threshold of this stage of their development the pupils of the last two years of the upper elementary schools stand, anxious to do things, and perceiving that some things can be accomplished only by working together in some form of club, they are eager to organize and enjoy the pleasure of achieving results through co-operation. Club life is to them, therefore, very real and vital. Not only is this true, but, as in the club they learn their first lessons in living and working together in a democratic organization, respecting the rights of others, while maintaining their own and performing their own duties while insisting that others shall not be negligent of theirs, we may almost say that the club is the youths' own state in which they learn the fundamental lessons of citizenship. Shall these lessons be learned only by the wasteful hit-and-miss method of experience or shall the pupils have the helpful guidance of the wise teacher? As the presentation of the proper motive by the teacher will set the pupils eagerly at work on the organization of a school club, it is within the power of the teacher, as advisor to such a club, to exercise this much needed guidance. Indeed, since the school club, when organized and conducted by the pupils, not only meets the need so long felt by the teacher in his endeavors to develop intelligent, efficient, and upright citizens, but also helps make school life more real and vital to the child, is it not the duty of the school to utilize this agency which expresses the civic life of the pupil as well as makes possible a natural and progressive growth in civic efficiency?

While from the point of view of the ideal of the school the function of the school club is to furnish opportunities for making vital through expression the knowledge of the rights and duties

of citizens in a democracy acquired through their study of the subjects of the curriculum, from the standpoint of the individual pupil one of the most important functions of the school club is to train its members in the knowledge and practice of parliamentary rules of order. How widespread ignorance concerning parliamentary procedure is among members of organizations of teachers and university post-graduate students, as well as of churches and women's clubs, is well known to those who are acquainted with the way in which the business of these organizations is often conducted or rather misconducted by the members, many of whom feel very deeply their inability not only to conduct meetings as they should be conducted but also to make or put even the most simple motions. Since this knowledge and power will be needed by the great majority of the graduates of our elementary schools, and since in these schools we are endeavoring to develop all of the powers of the individual, do we not owe it to the individual to develop his power and ability to co-operate with others in the conduct of meetings and in the transaction of business in the best ways, or according to recognized rules of order? Is it not the duty of the school to meet this real and vital need by developing in its pupils a working knowledge of these rules of procedure?

Granted that it is the duty of the schools to develop in its pupils a working knowledge of the standard rules of order, how shall the schools develop such knowledge? From the nature of the subject it is evident that formal instruction in it will be insufficient, since to make this knowledge vital requires opportunity to put into practice the knowledge thus acquired. From the nature of the child, furthermore, it is evident that this instruction and practice must not be artificial, since the result desired can be achieved only if the instruction be given in response to a need felt by the child and the practice be found in putting this knowledge to some practical use. As in the ordinary school there is no agency which either calls into being a need for this instruction or presents opportunities for the practical use of this knowledge, if the school is to be successful in giving this training, must it not make use of the school club, organized

and conducted by the pupils for the purpose of achieving ends accepted by the child as worthy of his efforts and attainable only through co-operation?

Thus the school club both makes possible a natural and progressive growth in civic efficiency and furnishes opportunities for a vital development of a practical knowledge of the rules of order in such a way as to assist the school in its endeavors to make the school life an expression of the child's life as well as a better preparation for intelligent, efficient, and upright participation in the privileges and duties of American citizenship.

INDUSTRIAL EDUCATION, THE WORKING-MAN, AND THE SCHOOL

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The education of a workman has always been very close to his trade. The dependence of his training upon his trade is expressed in the word apprenticeship. The apprentice has been trained by helping under the direction of a master in the trade. If we go back far enough we find apprenticeship as a necessary introduction to every trade, and indeed the only introduction. The elementary school appeared in the first place to train the clerk and accountant. It was part of the apprenticeship of the commercial trades. In the seventeenth and eighteenth centuries the artisans and laborers were not taught to read, write, and figure. The extensive commercial activity, the constantly increasing use of money, and the growing importance of reading for political and social life, gradually carried the demand for control over the three R's throughout the whole laboring class; though it remained for America in the early decades of our republic to inaugurate the common school with universal education. Under these conditions, the master artisan was expected to allow his apprentices to attend the common schools, but there was little or no connection between the schooling and training in the trade.

The school taught the use of language and number. Apprenticeship taught the vocation. It was true that the exercise of the trade demanded reading, writing, and figuring, but the apprenticeship system simply left training in these to the school. The two vehicles of education remained separate and influenced each other either indirectly or not at all.

This was partly due to the function of the common school in America. It opened the door to all avenues. Our democracy elected men to office who had no more than a common school education. It is not very long ago that boys left the common

school to read law and medicine. In a country in which everything was open to everyone and the common school was the door to all opportunities, the relation of schooling to the work of the apprentice was lost in its relation to more ambitious callings. The common school has retained its stamp of the first step toward the learned professions and political preferment.

Thus the education of the workman has been and has remained divided into two parts, the formal training in the three R's and the apprenticeship to a trade. These two parts have not been parts of a whole. The schooling has remained formal, bookish, and literary in its interest. The apprenticeship has suffered severely in the change of modern industry, but even in its better days it did not awaken any interest in its own history, nor in its social conditions, nor in the technique of better methods. The schooling taken by itself was narrow and unpractical, the apprenticeship had no outlook and wakened no interest outside itself. The two did not reinforce and interpret each other. In a certain sense they ought to have been in the relation of theory and practice. The apprenticeship should have presented the problems which the school solved, and the interest in the solution of these problems should have made the work of school vivid and educative. But while it is easy to pick flaws in this training, its results were admirable especially in comparison with the training which children of today get who work with their hands.

Apprenticeship remains in many trades, especially in those under the control of organized labor. The interest of organized labor has been, however, very largely that of keeping down the number of skilled artisans to that which the trade can profitably absorb. Organized labor has not accepted the control over apprenticeship to make out of it a better education. Nor is there uniformity in the trades. In many the apprenticeship system has quite gone by the boards, in others it is not at all adequate. As a system of training skilled laborers the old system of apprenticeship has disappeared and no consistent new system has arisen to take its place. The cause of the changes is evident enough. It is the machine that has taken possession of the trades, has displaced the artisan, and has substituted for the artisan, who

makes an entire article, a group of laborers who tend the machines.

The effect of this upon the training of the laborer has been most deplorable. The more the machine accomplishes the less the workman is called upon to use his brain, the less skill he is called upon to acquire. The economics of the factory, therefore, calls for a continual search for cheaper and therefore less skilled labor. The success of the modern type of wholesale manufacture of inexpensive goods has depended upon the vast numbers of unskilled laborers. Women and children have been swept into the factories to displace the more expensive labor of men. We are accustomed to recognize that the sudden use of this type of factory production was made economically possible by the huge markets which steam transportation brought to the doors of the factory. The other determining factor, the surplus of unskilled labor that could be absorbed by the factory and the mine, we are not so conscious of. We are also very well aware of the nicety with which the inventor can adjust the machine to a product which the market demands. We are not so aware of the equal nicety with which the inventor adjusts his machine to the cheapness of labor.

The most serious handicap under which labor suffered with the opening of the modern period of factory industry was the lack of any connection between the training of its apprentices and the technique of the machine. The intelligence of the artisan who made the whole article made of him an admirable citizen of the older community. It was this intelligence very largely which made the success of our early democratic institutions. The apprenticeship system made practical, intelligent, self-reliant men, as well as good workmen who did not have to blush for the work of their hands. The training was not, however, adaptable. The very skill of the artisan stood in the way of his adapting himself to the new régime. The skilled artisan was no more but rather less valuable than the untrained man. And machines invented to exploit unskilled and unintelligent labor in so far fixed the condition of the workman that were thereafter to tend these machines.

It is perhaps idle to speculate as to what the form of the machine, and the method of industry would have been if the laborer had had the training, the science, and the sort of skill which enabled the merchant, the manufacturer, and the engineer to make use of the advent of steam in manufacture and transportation; but we can recognize that invention has shown a suppleness in adapting itself to any kind of product or market, in using every sort of science and technique, and that there is every reason to believe that adaptable intelligence, skill that could be generalized and applied in various ways, if found at that period in the artisans, would have been a more profitable field for invention than the lack of intelligence and adaptability which our present machines are built to use and exploit.

A skill that can be adapted must be based upon some theory. The shop must be reinforced by the school. Such skill can turn from one form of manufacture to another, as the manufacturer himself can turn from sewing machines or steam locomotives to automobiles. Such dependence of the shop upon the school, of practice upon theory, we find in our most up-to-date apprenticeship schools. In those of the General Electric Company, of the New York Central Company, of the Houston, Stamwood, & Gamble Company at Cincinnati, the schooling represents by and large a half of the preparation. The apprentice must understand the technique that he acquires so that he can apply it with intelligence, and this means power to do many things, not one thing alone. It means the creation of intelligence rather than speed in the apprentice. These apprenticeship schools will not allow the foreman to hold the apprentice to a machine because he operates it with greater speed, i. e.: these schools recognize that the man must not be subordinated to the machine if he is to acquire the sort of skill they wish in these upper class workmen. The school and the shop must go hand in hand in modern artisanship. Their lack of connection in the old system spells the disappearance of the old-time system as the old-time artisan has disappeared. There can be no question that the modern artisan demands schooling if he is not to be a mere creature of the machine. He needs the mathematics and drawing out of which

the machine has arisen. He must know the formulas which are expressed in the tools that they may be his tools and adapt them to his uses. He must be able to read the blue prints that are the language into which the engineer translates the formula to carry it over into bodily form. This sort of training is the only kind that will free the artisan. It is not until he can comprehend the machine as a tool that he will not be a part of it. Not that the employer desires in his high laborers ignorance. He is building up expensive schools because skill here is money in his pocket. The history of the technical schools at Fall River, Massachusetts, demonstrates that the employee, the employer, and the community all recognized the need of this training in the artisans who were to employ the high-grade machines.

It is in the economic struggle that organized labor fears the apprenticeship school. It has fought to keep down the number of apprentices in order that their wages might be kept up, and their working hours more occupied. Industry being organized on the basis of surplus labor supply, it is natural that labor should suspect the employer of aiming to bring about a surplus of skilled labor not only to make sudden increase in production possible, but to enable the employer to fight the labor union. That many employers have this in view is of course true.

However, as long as advance in wages means skill there will be an inevitable demand among laborers for industrial training. Correspondence schools are profiting by this demand at present, at the expense of the laborer. In the end it would be hopeless for labor to maintain its economic position by entrenching itself behind lack of skill. If the apprenticeship school is the best method of learning the trade it will be adopted. The restriction of the number of apprentices must arise in some other fashion, for with these schools, whether in the hands of employers or in our public-school systems the numbers cannot be fixed by the labor unions, and skilled labor outside the union will be more dangerous than inside the organization. Inevitably the manner in which the commodity of skilled labor is to be controlled will be changed. It will be controlled because it is an economic waste to the country to have a surplus of labor. Our present industries

adapt themselves to this surplus and of course exploit it, but this does not in any sense justify it nor make it permanent. Industry has adjusted itself to and exploited child labor. The remedy for this exploitation is not to be found in reducing the birth rate, and thus the number of children. The community itself, becoming intelligent, refuses to permit such economic and human waste as that involved in child labor. It must reject as decisively a system by which industry drops its adult labor into misery when for the time being it is not needed, to pick it up again at a reduced rate when there is a demand for increased production. The social control we demand will come through increase in intelligence, and the laboring class is the last class that can afford to restrict its own intelligence. In our present industrial evolution the race is to the technically equipped or to those who can command such equipment, and in a competitive society those who lack such equipment must be subject to exploitation.

The tremendous revolution brought about by the factory system, the machine, has found every group in society equipped with sufficient free intelligence to enable them to adapt themselves to the changes incident to the revolution. The investor, the producer, the middle man, the technical expert, the engineer, the banker, fitted in with no friction with the new order and have profited financially. The capital of the artisan alone has been lost. His capital is his acquired skill. If this is simply in the form of a fixed group of habits every change in the method of manufacturing will consign workmen to the human scrapheap.

The financial disability of the laborer is that which is generally contrasted with the greater freedom of the capitalist or those who can accumulate a financial reserve. A revolution in industrial methods may annihilate the investment of the capitalist and even wipe out of existence the occupations of officers and employees. Still those whose incomes have permitted the accumulation of a reserve have an indefinitely better chance of getting upon their feet again, than have those whose incomes admit of no accumulation. There is room for them in which to move. They can seek opportunity at a distance. They can wait for it. They can prepare themselves for new and

unaccustomed occupations, while the laborer whose income is swallowed up day by day in the necessary outgoes for his and his family's daily bread, must do anything or nothing as it presents itself, at the moment, at his own door. There is no reason to depreciate this disability of the day laborer. It only emphasizes the other disability which has been above presented; the disability of skill without adaptive intelligence. The man who knows why he does what he does, is better able to do something else. Intelligence, the ability to see the relation of means and end in conduct, is the fundamental form of freedom—"and the truth shall make you free." A laborer with acquired skill for which he has no theory, approaches the condition of the purely instinctive animal. He becomes helpless the moment he is out of the environment to which his habits are adapted.

To these general propositions, which may be summed up in the old adage that knowledge is power, a reply comes from our technical schools and our universities. It is said that only a select few can afford to know; that our life has become so complicated that it must be governed by the highly trained expert; that it is the age of the expert who dominates our industry as really as he does our medical practice. And there are social philosophers willing to accept this judgment and build their conceptions of the future of society upon it. We are, according to them, to pass from the control of the political and financial aristocracy to that of the technical expert. Only they will be able really to understand why anything is done in the growing complexities of our society, and they will rule. And the answer to this philosophy is that the expert does not and in human history has not ruled. He has served. His greatest effectiveness is found among those who are intelligent. The expert even in industry demands not blind obedience but intelligent co-operation, and the more intelligent the co-operation can be, the higher the efficiency of the expert. What is wanted in an ideal machine shop, where the tools are made to do certain work, is that the man who uses the tools should be able to criticize the tools. He should be able to go to the man who planned and made them and tell him how they work and where the test of use shows that they fail and need to be improved. If

human intelligence consisted in the knowledge of fixed laws and methods the man who knew them would be king. It consists in the constant interaction of theory and practice. Theory is called in to tell us how to act, and what we do shows us where the theory was defective. As long as we have got to check up and reconstruct our theories, our plans, our models by their working, there is going to be as great need of intelligence in those who use the tools, who install the machinery and fit the pipes, as in those who think them out and make the blue prints. No one can estimate the loss which our industry suffers from the lack of trained intelligence among the workmen. The loss arising not simply from injuries and wear and tear due to ignorance, but from the suggestions of inventions that have not been made, from the opportunities for saving and for increased efficiency of equipment that have not been used can never be estimated. The exploitation of ignorance and misery which is involved in machines tended by the unintelligent, the children, the physically and mentally unfit represents losses none the less real because they are not recognized. Any process that adjusts itself to the lack of intelligence is in just so far wasteful—if it might be served by intelligence. If human invention has been able to make use of the ignorant and stupid, it certainly could have adjusted itself the more to those who were informed and skilful.

There is nothing more democratic than intelligence, because the higher the intelligence the more it demands of others for its own best exercise. It is true that intelligence may be used to manipulate brute matter, and brutalized men, and it may so adjust itself to this task that it conceives its function is to use the unintelligent. Those who possess it may conceive themselves an aristocratic class apart, but this only indicates their false and inadequate conceptions. When intelligence goes into action of any sort it demands all the intelligence it can find. It seeks comprehension in its agents; because it never can keep tab upon itself; it can never adjust itself and its constructions to their purposes without working with people who are in so far on a par with itself that they can judge the workings of the machinery and the execution of its plans.

This needs to be emphasized not only to make evident the importance to society of the widest possible spread of intelligence and the fact that industry can afford to pay for it, but especially to indicate the nature of the intelligence and the manner in which it should be acquired. It is the sort of intelligence that is close to its application. Its results are the criticism of methods and means as well as their use, and the suggestions of improvements and economies. This calls for an interest in theory just as far as that is involved in understanding what is being done. Many of our best mechanics get it without going to technological schools. They find out what they need to know and get the textbooks, the formulas, the tables that are necessary for this purpose. It is a result to which many a more ambitious education reduces itself in practice.

It is just the type of education which higher apprentice schools in this country and in Europe give to those whom they expect to be the élite of their workmen. It involves a knowledge of a whole process, if one is to comprehend any part of it. Thus in the approved apprentice school a boy may not be held to a single machine to merely gain speed. He must be familiar with all the machines. Mathematics and drawings are necessary for such a training, at least as far as the control over them helps on with his task. A large part of mathematics is a language in which one can best state his problem. If his work brings problems with it the workman must have the appropriate language in which to state them. It is also a language in which the results of the work of others can be conveyed in the form in which they will help toward the solution of the problems. The same thing can be said of the blue print. The competent workman must be able to read his tables, his formulas, his blue prints. It is fair to assume that any workman who has had the right training can reach this goal. It is important to notice that so much theory as this does more than make an expert workman in a definite calling. It also gives the skill he possesses adaptability and pliability. When he has met problems and has solved them in his own occupation he gains a confidence in his ability to solve the problem brought by a change of occupation. Theory after all is

nothing but the consciousness of the way in which one adjusts his habits of working to meet new situations. The man who has never made such readjustments is discouraged at the mere presence of the new situation. The man who has done it, who has some acquaintance with the processes and technical expressions by which it is accomplished has his interest aroused by the new situation. The acquaintance with, and use of, so much of the theory of an occupation as the exercise of the man's own function in it calls for, means that his habits are not fixed, that the man has an adjustable nature. His chances of fitting into a new economic situation are a hundred times better than those of the man who has simply the facility of a single process. In the exigencies of the shop such a man can pass from one machine to another. His speed is not at first what it will be when his reactions become almost automatic, but the knowledge which he has of the whole process and the ability he has of stating the new and the old jobs in the same terms render him a vastly more valuable man than the workman who is nothing but a part of a single machine. The amount of training which an operative, a workman, in any trade should have is that which will acquaint him with all the processes of his trade, and so much theory of his trade which will enable him to understand the tools he uses and the manner in which they operate, that he may both use the tool to the best advantage and be able to check up its efficiency and suggest the sort of changes and improvement that should in his judgment be made.

So much training a mechanic, a farmer, a mill operative, a plumber, every artisan should have. In the bill of rights which a modern man may draw up and present to the society which has produced and controls him, should appear the right to work both with intelligent comprehension of what he does, and with interest. For the latter one must see his product as a whole, he must know something of the relation of the different parts to the whole, and he must know enough of the language in which the problems of his trade are stated and solved to be able himself to criticize his own work and his own tools. This indicates also the manner in which this training should be acquired. The

apprenticeship school in which school work and shop work balance each other, in which the school provides the method of stating and meeting the problems which arise in the shop, has become the modern system of apprenticeship. As we have seen, it is distinguished from the older apprenticeship system by its school, and from the later system by the organic relation between the school and the shop. The school work commands attention because shop problems appear there. And the shop becomes educative because its processes are comprehended and thought out. This educational method is ideal from the psychological point of view, for the acquirements of the school are demanded by the practical activities of the boy. This result has never been attained in other public or private schools. The training in these schools has been planned largely with reference to occupations which are not to be undertaken until the pupil has left school. Hence language and number have been dry formal studies meaning little or nothing to the child.

Some schools have attempted to meet this difficulty by introducing what have been called constructive activities in the school, so that the problems of the children might be real problems. The measurements of the boxes they were making should give them their arithmetical problems. In solving the problem they would also be learning what amount of lumber they would need and what lengths they would have to cut off, etc.

With this in view, very varied activities have been introduced in certain private schools. The results have not fully met the anticipations. The children's work has not felt the compulsion which apprenticeship offers. The actual products of the factory set not only problems but they carry with them a discipline that the apprentice accepts. They set the standard which becomes the boy's standard because he wishes to succeed in his calling. No task which the child sets to himself, and no task which the school sets as a school, has this meaning to the child. His own task makes no demand upon him that is bigger than himself and sets no standard that comes upon him with compelling power from the great world of which he wishes to be a part. No tasks of a school can be made to take hold upon the child as the training does

which is to admit him to the rank of men. Even in college the students will not work as they will in the law and medical schools where they get their professional training.

In an industrial democracy the citizen must sufficiently understand the tools and the processes to comprehend and criticize the tool and its use. This is not only necessary for the technical efficiency of the industry. It is equally essential for the social control of the conditions of labor. At present the workmen undertake this by controlling labor as a commodity in the market. The artisan has lost the vantage-point of the mediaeval guild. Their control was over the product and the process. It is neither possible nor desirable to reproduce the mediaeval guild. It *is* possible and logical to make the workman's skill the basis of his social position and financial competence. Where labor appears only as a commodity, the unit being any man, the group of laborers can protect their wage only by protecting the weakest man. His wage must be theirs and it follows that their individual outputs must be his. On the other hand, the more highly skilled workmen tend to get out of the unions because on the one hand they do not need its protection and on the other their own earning power is restricted. Or the unions of the more highly skilled trades are able to pursue so different a policy in protecting their wage and hours of labor, that they lose touch with the unions of less skilled labor. This break emphasizes the attitude of the unions of the relatively unskilled trades. It is of the first importance that the working-men recognize that skill—developed intelligence—brings an entirely different factor into the economic situation, from that of the so-called supply and demand of a commodity. That other factor is described somewhat vaguely as the standard of life. It is recognized in the higher salaries of skilled employees—of professional men. When you demand skill you must make possible the conditions under which that skill can be obtained and exercised. Those conditions involve not simply technical training. Intelligence depends upon conditions of physical and social well-being. Every new demand for skill will inevitably carry with it the conditions under which that skill can be obtained. The manner in which a community

responds to this obligation will be varied, and will appeal to many motives beside the economic interests.

There is no community in which a more conscious demand is being made for larger skill on the part of its workmen than Germany. There is no community in which society has faced more definitely the necessity of raising the standard of life of its working classes. State insurance seeks to meet the unavoidable accidents and disabilities. Supervision of hygienic conditions undertakes to eliminate the evils to which economic inferiority exposes great masses of men. Universities and schools of every character aim to put the intelligence of the laborer upon the higher level demanded by the self-conscious industry of Germany. And Germany has but begun to recognize the consequences which will follow with unavoidable logic upon her demand that her laborers be adequately instructed. Society cannot demand intelligent workmen without accepting the policy of rendering the acquirement of such intelligence socially possible. What the laboring classes have to fear, at least for the immediate future, is that the demand for skill will be too restricted; that our community will conceive that it can fulfil its industrial functions with an élite of trained workmen and a proletariat of the ignorant and unskilled. If organized labor can raise its eyes for the moment beyond its immediate quarrels with its employers, it will recognize that its most strenuous efforts must be directed toward the widest possible industrial education, and that this demand must be made on behalf of all labor.

There remains the school itself. The apprenticeship system, as it has been worked out by the General Electric Company, is pedagogically and technically admirable. It is possible and probable that such schools will be multiplied among large concerns throughout the country. But even with such extension of the system the demand for this apprenticeship will not and cannot be met. Every laborer who is going into mechanical industry or into allied trades should have this training. It will be a training, if we may judge from the experience already gathered, which will accomplish its task of instruction as the public schools have never been able to fulfil theirs, for it will, under proper condi-

tions, draw upon the interest of all professional training, and it will always have the discipline which contact with the actual process and product brings with it.

Such training cannot be confined to those whom our great industrial companies educate for their shops and designing rooms. It must be the demand of labor that this system of apprenticeship training be taken into the public schools. Manual-training high schools should become apprentice schools. But in this case the curriculum should be one so far liberalized that the history and geography of the trades connect the apprentice's skill with the social and physical conditions out of which it has sprung, and in which it at present exists. The curriculum should also contain the study of the social community into which the graduated apprentice will go. He should comprehend the central and state government not only, but the legal and administrative features of the city within which he is to labor. He should understand the laws that protect him as well as those which threaten him with pains and penalties. He must know to what officials he can appeal and he should have some comprehension of operation of the courts and the city council. He should know something of the conditions which control wages and their relation to the calling he expects to exercise. If his years and interests admit, such a course should be one in elementary sociology, such as are already to be found in French industrial secondary schools, in which the ideas of social obligations, the meaning of social standards, and the relations of man to the community can be discussed. What the child expects to do and what he expects to be provides adequate motive power for study and application. They provide also the natural center from which his relation to the past, in history, and to the present, in the study of society, can be brought within his field of interest and comprehension and through which he can form those fundamental conceptions of social rights and obligations which constitute our morality.

There remains, however, the still more difficult question of the elementary schools, where at the present time the vast majority of Americans get all their formal education. As has been indicated earlier the rest of the community have suffered

because the curriculum of the elementary schools has been fashioned to meet the demands of a commercial class, and for those who expect to pursue literary and professional studies. The arithmetics do not present the type of problem that the average child meets when he leaves school. The histories instead of bearing on the occupation and phenomena with which the child is familiar, and toward which he is attracted, are hopelessly political. One would assume, from the study of our school histories, that politics is the only phase of human society that has a history. Geography is abstracted from the actual relations of industry and commerce which would give it meaning to the child living in a world that is given over to the production of wealth.

How the elementary schools will finally adjust themselves to an education that faces toward the occupations which its pupils will enter, remains to be seen. It is, however, beyond question that the training on the farm and in the shop, even of the child who is not yet old enough to enter upon definite apprenticeship, indicates the direction toward which educational theory and practice must turn.

Two great facts stand out. One is that we are forced to reconstruct our whole apprenticeship training, and that when this is satisfactorily accomplished it will carry with it not only satisfactory technical training but a much broader and more liberal education than our schools at present can give to those who enter industrial occupations. The other is that apprenticeship provides an adequate and indeed almost the only adequate method of instructing children. When we recognize that this instruction need not be narrow nor unenlightened the objection to the application of the principle in our public schools finally disappears.

EDITORIAL NOTES

INDUSTRIAL NATURE-STUDY

The Waste in American Forests, Farms, and Mills

The amount of timber taken from the forests of the United States is so great that if piled solidly in a mass one mile wide and one mile high, it would produce a pile more than 852 miles in length. Such a stack of wood would extend almost from Chicago to New York, or from Chicago to New Orleans. We take from our forests 260 cubic feet for each inhabitant of the United States, while the per capita consumption of timber in Germany is 37 cubic feet and in France is 25 cubic feet. Though this annual cutting exceeds by 3½ times the annual growth of new timber, and though some improvement has been made in our forestry methods, still one-fourth of the standing timber is lost in logging processes, and in milling from one-third to two-thirds of the amount delivered at the mill. For forty years forest fires have destroyed an annual average of fifty lives and $50,000,000 worth of timber.

The United States produces "one-fifth of the world's wheat crop, three-fifths of its cotton crop, and four-fifths of its corn crop." But our wheat fields of 50,000,000 acres yield an average of only 14 bushels per acre, while the wheat fields of Germany and England yield respectively 28 and 32 bushels. Our 100,000,000 acres of corn fields yield an average of 25 bushels per acre, although our best agricultural colleges and progressive farmers have demonstrated that 100 bushels and more per acre may be produced on good soil by proper tillage. Our farm crops annually lose through injurious insects an amount estimated at $659,000,000, and farmers and horticulturalists lose through plant diseases additional hundreds of millions of dollars annually. Preventable diseases are largely unprevented, and securable benefits from more intelligent application of knowledge of industrial science are largely unsecured.

Educational Value of the Efforts to Correct Waste

The other side of this wastage of natural resources is the interest growing almost month by month in correcting our national besetting sin. And the increase in our national income arising from industrial methods improved by science and practical intelligence arouses not only the absorbing interest of technical and business men. It offers material of equal interest and import for education.

The motto of efficiency in education can be read from this point of view—education in efficiency. The effect on children of studying the increase of the return from industrial processes through the scientific intelligence is distinctly moral.

The Organizing Value of the Standpoint for Nature-Study

The point of view has equal value in organizing the work in nature-study. It gathers the study about specific industries and specific localities. It relates the plant and animal life to each other and the human interests that must after all be the center of all children's interest. Nor need we fear the narrowing effect of the objectionable type of industrial training. The application of science to agriculture, to lumbering, and the manufacture of their products does not mean drill in formulae, but the study of plant and animal life, in its relation to the occupation and locality; the study of savings in human life and well-being. It approaches the study at the point at which system and a better order are being introduced in the industry, and this means an order in the relation of the things studied as well. It means interest in these callings, and their methods. It carries with it the appreciation of their function and value in the community. Nature-study can most profitably be organized and developed from the standpoint of industrial agriculture and forestry. It has already proved its pedagogical value in both elementary and secondary schools.

O. W. C.

NOTES AND NEWS

Many American teachers will recall the enthusiastic study made of American schools a few years ago by Mr. J. C. Hudson, who, with the assistance of his wife, is now conducting the Home School for Boys and Girls at Inglehome, Highgate N., London. The private school which has grown out of his home work, and this visit deserves more than passing notice. Perhaps nowhere is the immediate influence of Professor Dewey's work more evident today than in this and in one or two other schools in England. A visit to the school during its first year showed a remarkable appreciation of those elements in American education which have bearing upon English conditions. Mrs. Hudson and the other teachers associated in this undertaking are people of unusual ability and the advisory committee includes Professor and Mrs. Patrick Geddes, Alfred C. Haddon and others eminent in British education, and Professors John Dewey and Earl Barnes of America. Mr. Joseph Fels, with characteristic generosity, has furnished a scholarship fund of £100.

The illustrations and subject-matter of the new announcement are suggestive of a well-organized school life leading into all the more important interests.

The English schools make much more of inspection by outsiders who judge a school in operation without reference to its relations to college entrance or other single considerations. A report in this case is made by Professor Geddes which answers many of the questions a parent or a student of education would naturally ask. Even more suggestive are the reports of the medical officers. These are made at the end of each term and so show the effect of previous examinations and of efforts made at progress.

The *School* (England) for January, 1909, reports that in Japan, in 1904, "Discipline in the schools was not well maintained. Strikes were prevalent. One of the paradoxes of the country is said to be that 'whilst elsewhere it is the master who expels a boy, here it is the boys who expel the master.' The usual practice is for the pupils to write and recommend an offending teacher to resign; if he decline they request the director to dismiss him; and failing that, go on strike. Deference to the sentiment of subordinates is a characteristic of Japanese life—a fact upon which Mr. Hearn commented, and it partly explains the apparent weakness of the teacher."

W. H. Winch in the same journal, in connection with the Chicago plan for the promotion of teachers, states: "It hardly seems to me that the scheme carries out the object which the superintendent has in mind. . . . .

Are we quite sure that this never-ending examination of the teacher is just the way to secure it? Is it not of vastly more importance to find out what habits of thought and work he has instilled into his class? What has he done to inspire his boys to thought and action?"

The December number of *School Hygiene* contains some very valuable materials for the guidance of teachers in the observation of their pupils. The time has practically come when, to allow curable defects in school children to remain, is inexcusable. The Massachusetts Board of Education has issued a pamphlet entitled *Suggestions to Teachers Regarding Tuberculosis and its Prevention.* The legislature had passed an act providing that tuberculosis and its prevention should be taught in all grades of the public schools of the state in which instruction is given in physiology and hygiene. This pamphlet gives suggestions to teachers for the observation of children for the purpose of early detection of any symptoms of this disease. It teaches the simple gospel "of fresh air, day and night, sunlight, cleanliness, bathing, plenty of plain, nourishing food, and care of the teeth and bowels. If school children can be taught this hygiene, so simple, yet apparently so little appreciated, a great advance in social progress will be evident." Teachers are very diffident about making suggestions that may reflect upon the intelligence of the home; but movements that have the initiative of the State Board of Education back of them can, certainly, be made educative in a social way without making the teacher obnoxious to the community

There are two very common causes of ill-health in children which the average teacher pays little or no attention to, and which seriously affect the child's power to do work. These are adenoids and decayed teeth. Prof. William H. Burnham discussed the former in an article in the *Pedagogical Seminary* for June, 1908. His list of special symptoms to be observed should prove valuable to all teachers who are interested in the health and work of the children they are teaching. These are:

1. Disturbances of breathing. Breathing through the nose is difficult, so the mouth is kept open.

2. Disturbances of speech. The voice has a nasal sound, since the stopping of the nose hinders clear speech.

3. Disturbances of hearing on account of the swelling of the Eustachian tubes. In this way buzzing in the ears, deafness etc., may occur.

4. Disturbances in the functions of the brain resulting in inattention, so-called *aprosexia nasalis,* and the like.

Investigation shows that from 5 to 6 per cent. of the children in the Boston schools suffer from this disorder, and that in the German schools about 10 per cent. are afflicted. In Leipzig the percentage has run as high as 23.2 per cent. Surely this is not a subject to be treated lightly, since it has been developed that there is a close relationship between mental weakness and the nasal disorders which interfere with good breathing.

The subject of dental decay is treated by *School Hygiene* in a special article. "The medical inspection of school children has demonstrated the fact that one-third to one-half of them stand in need of dental attention." Here is a typical report:

New York Children. (Report of Dr. Haven Emerson on physical condition of poor children admitted to the summer sanitarium at Sea Breeze, Long Island.) An examination of 1,478 poor children, 1 to 15 years of age, showed 278 (18.8 per cent.) with no apparent dental decay, and 1,200 (81.2 per cent.) with dental decay existing.

These revelations point most clearly to the necessity of instruction of both school children and teachers in the care of the teeth, and in the evil effects of decay. A monthly inspection of the children's teeth by the teacher, and an annual inspection by the school medical inspector, are the measures required to bring home to each child and parent a realization of the importance of the subject, ... Not less important is the education of all parents to the relation between sound teeth and good health.

In August, 1907, the San Francisco Board of Education adopted a plan for instruction in Civics in the Eighth Grade which should attempt to make a direct connection of the Individual with the social institutions of which he is an implicit member. The study is based directly upon the actual life and conditions of the city. The following outline will show the general plan pursued, and may serve to stimulate other work, elsewhere, along the same line. The text book used in this connection is Dunn's *The Community and the Citizen.* The outline follows: For the first half-year: The beginnings of a community. What is a community. The site of the community. What the people in a community are seeking. The family. Some services rendered to the community by the family. The making of Americans. How the relations between the people and the land are made permanent and definite. How the community aids the citizen to satisfy his desire for health. How the community aids the citizen to protect his life and property.

The outline takes up in the second part of the year the larger problems of the community life and its relationships to the larger community life of the state and nation. Problems of business, government regulation and control, waste and saving in production and consumption, community life and transportation, educational satisfactions in the community life, provisions for beauty and recreation, community provision for the religious life and interests, community care for the defective and dependent members, provision for the control of those who cannot control themselves, defects in self-government of cities, and the outlying problems of rural, state, and national government, with some consideration of the question of taxes. The effort is made

to stimulate the children to take a deep interest in community life. Have them investigate various topics by observation, inquiry, and reading. Then let their reports be a basis for fair and free class discussion. Try to make the children

conscious of what the community has done and is doing for them, and try to make them sensitive to their obligations. Stimulate the spirit of inquiry and analysis from the facts, and encourage the forming of intelligent personal opinions. Work for a proper attitude of mind rather than mere command of facts.

Such work as this is surely more fundamental than the dry abstractions commonly taught under the name of civics.

We are hearing a great deal today about the necessity of individual teaching. Very little definite information is at hand, however, to show the greater value of individual teaching over class instruction. The article by Dr. Elmer E. Jones, professor of education at the Indiana University, published in the current number of *The Psychological Clinic,* is therefore timely.

Professor Jones picked out a first-grade class, and studied their progress in learning words during a period of sixteen weeks. During this time the average child in the class learned 150 words and over. Each week that the test was applied by Professor Jones, a few more words had been added to the child's vocabulary. But there was one boy in the class who at no time during the sixteen weeks had learned more than twelve words, and on the last day of the test, at the end of the sixteenth week, he knew only two words of the total number that had been taught the class. The boy was then given individual teaching. At the end of the second week the test showed that he knew eighteen words, and every week he added a few words to his vocabulary, until at the end of fourteen weeks of individual teaching he knew 130 words, doing just about as well as an average child under class instruction. Professor Jones's results are a strong argument in favor of the establishment of special classes for children who are supposed to be mentally defective, as this boy was supposed to be, but are merely unable to progress because the methods of the classroom do not reach them individually.

The report of educational work in Alaska is very interesting.

In the years 1907 and 1908 the Alaska division has erected twenty-three new school buildings for natives in Alaska; has strengthened the provision for the industrial training of the natives, including the provision for the teaching of agriculture and other industries in the southern districts and the establishment of nine new centers for the reindeer industry and the distribution of reindeer to natives in the more northern region; and has instituted a campaign for sanitary education and the improvement of sanitary conditions with particular reference to combating tuberculosis.

The Legislature of Indiana is considering a very comprehensive bill embodying an "act to protect and conserve the health and lives of school children by providing for their medical inspection, by providing healthful schoolhouses, and by requiring the teaching of hygiene." Little by little we move forward.

BOOK REVIEWS

Special Method in Reading in the Grades. Including the Oral Treatment of Stories and the Reading of Classics. By CHARLES A. MCMURRAY. New York: Macmillan. Pp. 351. $1.25.

This book is a combination of two earlier volumes both of which deal with special method in reading. These earlier volumes—*The Special Method in Primary Reading and Oral Work with Stories* and *The Special Method in the Reading of English Classics*—appear in this new form with but few changes.

In the present form the book will be found to contain in the main three lines of treatment of the subject. In the first place, it is a plea for the teaching of reading in all grades for the sake of its content. Secondly, several chapters are devoted to a consideration of the technique of teaching reading to beginners; and thirdly, the book contains a course of study in reading for each of the grades together with illustrative lessons.

The earlier part of the book lays great stress on the importance of oral work as a preparation for learning to read, and as supplementary to the regular work in reading, especially in the earlier years. Such a method of procedure is based upon the view that it is much more important for a child to acquire a taste for good books than to meet the purely formal requirements of learning to read. Furthermore, even apart from his inability to read, the appeal to the young child through language appears to be stronger when by the medium of the sense of hearing than sight. A number of useful hints to teachers for the acquisition of skill in the oral presentation of stories are given.

The sentence, word, and phonic methods in alternation are recommended for teaching reading to beginners. Some details are given by the author as to how these methods may suitably be applied at different times, but the main point insisted on here is that the reading material should be interesting in content. To this end it should preferably be connected with stories already made familiar to the children in oral form.

One can object to this great emphasis on the importance of content which is the keynote of the book, only when it leads to a corresponding neglect of drill and analysis. The apparently growing number of children in the schools who read incorrectly because the words are apprehended by a process little better than guess work, shows that there is a tendency to go to extremes in this respect.

The bibliographical material of the book is extensive and valuable. A number of illustrative lessons are given and suggestions for the treatment of certain typical stories and phases of literature suitable for the various grades.

Book of Alphabets. For Use in Schools. By H. W. SHAYLOR. Boston: Ginn & Co. Pp. 24. $0.10.

This book is essentially a copy-book designed for practice in lettering. A variety of standard alphabets are presented—Roman forms, French script, Gothic, outline, italic, Lombardic, simple, plain, and skeleton letters, etc. These

are so arranged that the letters to be made come directly below the copy. In addition to the alphabets there are a number of illustrations showing the various letters in title-pages, headings, and illuminated texts, and also a page of monograms and ornamented initials.

E. H. CAMERON

YALE UNIVERSITY

Joseph, A Three-Scene Play for Children. By F. H. SWIFT. New York: William Beverley Harison. Pp. 31. 25 cents.

To those seeking to make the incomparable stories of the Bible live again in the experience of the children of today, and to those who in searching for really valuable material have read through innumerable books, painfully compiled but thoroughly worthless, Mr. Swift's dramatization of the story of Joseph comes as truly refreshing.

No really alive educator doubts the value of using the imaginative and dramatic instinct in every child to make him understand different phases of life and to develop that rare trait of putting himself in someone else's place, but few teachers in the actual routine of the daily accomplishment of things necessary, have either time or energy to arrange a story in dramatic form. Here is a play ready to hand, the most dramatic of stories, as truly human today as when told to breathless audiences thousands of years ago. It has world-wide passions, great contrasts of situation, and the great moral principle of forgiveness of wrong.

Mr. Swift has simplified the intricate biblical account, has cut out unnecessary material and has retained the beautiful English of the Bible to a very large extent. He has given the whole unity and good dramatic structure. The book is printed in inexpensive form and only on one side of the page, so that the leaves may be torn out and used by more than one child.

For three years this little play has been used in the Charlton School, New York City. It has served as the climax to the study of the pastoral stories of the Old Testament, which the third grade of this school uses as a part of its literature. In the history period the manners, customs, tent life and nomadic habits of a pastoral people are studied, aided by pictures, sand table work and Bird's story of *Joseph the Dreamer*. The story is read by the children in biblical language. With this as a foundation transition to dramatization is simple and natural.

The conditions in a private school give unusual advantages, for daily the children come laden with photographs of deserts and Egyptian temples and rare trophies collected by fathers and mothers who have traveled through the Orient. With the Metropolitan Museum within a few blocks the glory of Egypt and the greatness of Pharaoh become realities. Yet this very wealth of material has been recognized as a danger, and care has been taken to the end that, after the pictures of ancient Egypt and of the simple nomadic life on the beautiful Judean hills had been built up in the children's imaginations, they then should not be spoiled by any cheap scenic effect. "We had only black cloth over a screen for a tent, and one palm," says a small girl in her composition, "because we like to use our imaginations." The throne room of the monarch

of Egypt consisted of the same screen draped with some rarely beautiful curtains loaned by an interested mother. The chair in front of it was covered with the same material. The children grouped in front of these, with their bright oriental costumes falling in soft folds because made of canton flannel and cheese cloth, made pictures long to be remembered.

The simplicity of the scenery and the costumes threw the emphasis on the children and their interpretation of the story. From the first they felt that this was no ordinary play but one to be approached with reverence and lived, because they already loved it. They were quite unconscious of themselves but were too young to fully enter into the passions of hatred, power, or supreme forgiveness. Still the essentially great is always worthy of reflection, even in imperfect mirrors, and the effect on the audience, which perhaps is the best test, was a great surprise even to those who had lived with the children and felt the power of the story.

The value of such work is very well worth while.

ANNA MANSFIELD CLARK

NEW YORK CITY

The Summers Readers, Primer, First Reader, and *Teachers' Manual.* By MAUD SUMMERS. Illustrated by LUCY FITCH PERKINS AND MARION L. MAHONY. New York: Frank D. Beattys & Co.

This series is one of the best that has been produced of late for beginning work in reading. It is far better in our estimation than an earlier work of the same author, *The Thought Reader,* being richer in content and more psychological in treatment. The *Primer* contains short sentences built on familiar experiences and on children's rhymes and also simple commands for movements to be carried out by the children. The *First Reader* contains familiar fairy-tales, rhymes, poems, descriptions of such activities as maple-sugar making, and carpentering, with some "observation lessons" from nature. These are all well chosen and well told and form a valuable addition to our list of First Readers, in which there are too few that are as full of interest and still simple enough for the beginners.

In her *Manual* Miss Summers sets forth most clearly her idea of the process involved in learning to read, and her mode of simplifying and strengthening the elements in the process. She takes up the subject under three headings: Thought, Symbol, and Phonics, treating each element fully with ample illustrations, and without wearisome detail. She places thought first as the all important goal in the teaching of reading and demands that the association of symbol and thought, or symbol and image, be made while idea is vividly present in the child's mind. To this end she recommends the use of script reading from the blackboard from the beginning, with a transition to the printed page, to be made whenever the children show a measurable degree of readiness in reading the script. Her treatment of phonics is full of good suggestions and free of the burdens of technicalities. She deplores the early use of diacritical marks as a useless cumbering of the image. The author emphasizes the prime interest which action has for the little child and develops the first reading lessons through an appeal to his love of performing even the simplest movements at command. To the

mind of the reviewer this is a useful device among other devices, but is in danger of being over-worked, or magnified out of its real importance. The earlier pages of the *Primer,* also, do not quite bear out the author's own theory of the value of *thinking.* Some of the lessons seem too trivial. But they are interspersed with so much that is excellently presented that it seems hardly fair to be too critical on these points. The *Primer* is good, beyond the average, and the *First Reader* merits a place in every school. The *Manual* should certainly be of great assistance to the young teacher.

The Wide Awake Third Reader. By CLARA MURRAY. Boston: Little, Brown & Co. Pp. 224. $0.40.

This is not a story-book, but consists in part of sketches of foreign peoples and their customs as seen through the daily doings of foreign children. These include children of Holland, Armenia, Greenland, Japan, Switzerland, and Brazil. This work is excellently done, and the book would be a valuable adjunct to the supplementary reading stock of every school for this alone. Its merits do not end here, however, for there are some delightful animal, bird, and plant studies, some good poems, and the charming "Christmas Monks" of Mary E. Wilkins. Altogether it presents varied and interesting matter for children of about the third or fourth school year.

Fairy Tales, Vol. II. Compiled and Edited by MARION FLORENCE LANSING, M.A. Illustrated by CHARLES COPELAND. Ginn & Co. Pp. 180. $0.40.

This is the second volume in a series of which two other volumes were reviewed in the December number of the *Elementary School Teacher.* The compiler states that the division of the tales into two volumes does not indicate that they are intended for children of different ages. The stories are taken about equally from Perrault, Andersen, and Grimm. She also calls attention to the discrimination of fairy tales from stories of heroic deeds which are supposed to have been carried down from some actual events in time and place. Tales of the latter class are to appear in a succeeding volume under the name, *Tales of Old England.* Like its predecessors this second volume of Fairy Tales is a convenient little book of well-chosen and well-told tales and is eminently suitable for school reading.

The Tortoise and the Geese and Other Fables of Bidpai. Retold by MAUDE BARROWS DUTTON. Boston: Houghton, Mifflin & Co. Pp. 125. $1.00.

These fables are handed down to the modern world from the obscurest of origins, from the early literature of the Orient. Tradition ascribes their authorship to one Bidpai, of India, who wrote them at the command of the king, and delivered them as a treasure into the keeping of his ruler. La Fontaine incorporated some of them into his fables. To represent the aim of this collection we quote from the compiler: "In this selection from the fables of Bidpai only a scant portion of his wisdom and his humor is offered, but it is sincerely hoped that herein lies sufficient to awaken in our children a love for this Indian sage that shall increase with the years until the name of Bidpai be ranked in their affections with Æsop."

Wherever the fable is wanted as reading material in the school, this collection will be a desirable one.

BERTHA PAYNE

Laboratory Lessons in Physical Geography. By L. L. EVERLY, R. E. BLOUNT, AND C. L. WALTON. New York: American Book Co., 1908. Pp. 246. $0.56.

The manual is intended to furnish sufficient exercises for a full year's work but is so written "that some may be omitted by classes that have not time enough for all, without detriment to those remaining." The authors have sought "to arrange some exercises that shall suggest better methods to many teachers, and save time for those who are too busy to work out the details of plans they may have had in mind." The reviewer believes that they have been very successful. The manual contains eight exercises on "Mathematical Geography," nine on "Materials of the Earth's Crust," thirty-one on "Drainage and Land Forms," thirty-two on "The Atmosphere," and ten on "The Ocean." It seems that many more type forms could profitably be added to the map exercises on land forms, while some of the exercises on materials of the earth's crust and the atmosphere might just as profitably be done by the teacher. If the exercises that the instructor selects from the manual are well done they should aid greatly in giving the student a clear concept of the subject. The manual should be adapted and not adopted. It seems to have been prepared with this in view.

GEO. J. MILLER

THE UNIVERSITY HIGH SCHOOL

First Year in United States History. Books I and II. By MELVIN HIX. New York: Hinds, Noble & Eldredge, 1908. $0.40 each.

These little books are admirably adapted to the pupils for whom they are written—"the American school children who leave school by or before the end of the sixth year of school." To awaken and sustain a love for history in early adolescence, the author has avoided the "epitome" pitfall and has treated a few topics fully, securing vigor and vitality through a choice of incidents with action, anecdotes, and interesting details. His treatment is biographical when possible; his style is clear and simple, yet vigorous.

Although the occasional page of important events, with their dates, may be made to serve some purpose, it is doubtful whether the completing of each period by faithful inserting of the less important facts of history (as, for instance, the settlement of New Jersey) is really necessary for immature readers. The books, however, answer a demand created by our modern courses of study.

JESSIE E. BLACK

BOOKS RECEIVED

AMERICAN BOOK CO., NEW YORK

The Human Body and Health. An Elementary Textbook of Essential Anatomy, Applied Physiology, and Practical Hygiene for Schools. By ALVIN DAVISON. Cloth. Illustrated. Pp. 320. $0.80.

Standard Algebra. By WILLIAM J. MILNE. Half leather. Pp. 464. $1.00.

Songs Every One Should Know. Two Hundred Favorite Songs for School and Home. Edited by CLIFTON JOHNSON. Cloth. $0.50.

Choruses and Part Songs for High Schools. By EDWARD BAILEY BIRGE. Cloth. Pp. 184. $0.65.

D. APPLETON & CO., NEW YORK

The Appleton Arithmetic, Primary Book. By J. W. A. YOUNG AND LAMBERT L. JACKSON. Cloth. Pp. 264.

GINN & CO., BOSTON

Control of Body and Mind. (Book Five, "Gulick Hygiene Series.") Cloth. Illustrated. Pp. 267. $0.60.

Merrie England. Travels, Descriptions, Tales, and Historical Sketches. By GRACE GREENWOOD. Cloth. Illustrated. Pp. 200.

Tales of Old England in Prose and Verse. Compiled and edited by MARION FLORENCE LANSING. Cloth. Illustrated. Pp. 180. $0.35.

CURRENT EDUCATIONAL LITERATURE IN THE PERIODICALS[1]

IRENE WARREN
Librarian, School of Education, The University of Chicago

B., G. H. The financial status of the university professor. Liv. Age. 42:375-9. (F. '09.)

BAUGHMANN, JEANETTE G. Informal exercises in the primary grades. Educa. Bi-mo. 3:211. (F. '09.)

BOONE, CHESHIRE LOWTON. A course of study in manual training—6. Man. Train. Mag. 10:235-41. (F. '09.)

CAMERON, J. Y. The fourth modern Olympiad, London England, 1908. Amer. Phys. Educa. R. 14:40-5. (Ja. '09.)

[1] Abbreviations: Amer. Phys. Educa. R., American Physical Education Review; Educa., Education; Educa. Bi-mo., Educational Bi-monthly; Harp. W., Harper's Weekly; Liv. Age, Living Age; Man. Train. Mag., Manual Training Magazine; Psycholog. Clinic; Psychological Clinic; Pub. Lib., Public Library; R. of R., Review of Reviews; Sci. Amer. Sup., Scientific American Supplement.

DEWING, ARTHUR S. Some reasons for decrease of interest in nature study. Educa. 29:291–3. (Ja. '09.)

FAULKNER, ROLAND P. Some uses of statistics in the supervision of schools. Psycholog. Clinic. 2:227–33. (Ja. '09.)

GILBERT, M. B. Dancing: its applications and its advantages. Educa. Bi-mo. 3:212–15. (F. '09.)

GREENWOOD, J. M. Progress of pupils through elementary and high schools. Educa. 29:267–75. (Ja. '09.)

GRISWOLD, SARAH E. The importance of gymnastics in the first grade. Educa. Bi-mo. 3:209–10. (F. '09.)

HORWILL, HERBERT W. Democracy in American education. Liv. Age. 42:231–5. (23 Ja. '09.)

KINDERVATER, A. E. The international gymnastic and athletic competition at Frankfurt, Germany, and Olympic games at London, England. Amer. Phys. Educa. R. 14:27–39. (Ja. '09.)

LARNED, CHARLES W. Athletics from a historical and educational standpoint. Amer. Phys. Educa. R. 14:1–9. (Ja. '09.)

MCMANIS, JOHN T. Reciprocal relation between physical and mental education. Educa. Bi-mo. 3:226–33. (F. '09)

MULLINER, MARY R. Posture as related to efficiency of body and mind. Educa. Bi-mo. 3:201–4. (F. '09.)

OGG, FREDERIC AUSTIN. Harvard's new president. R. of R. 39:196–9. (Ja. '09.)

SCHRADER, CARL LUDWIG. Why physical education in the grammar school? Educa. Bi-mo. 3:205–8. (F. '09.)

SNEED, C. M., AND WHIPPLE, GUY MONTROSE. An examination of the eyes. ears, and throats of children in the public schools of Jefferson City, Mo. Psycholog. Clinic. 2:234–8. (Ja. '09.)

WELLMAN, JAMES. Harvard's new president. Harp. W. 53:27–. (23 Ja. '09.)